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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,670	07/24/2000	Pradip Mukerji	6407.US.p2	7619

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EXAMINER
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RAMIREZ, DELIA M

ART UNIT	PAPER NUMBER
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1652

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	<b>Application No.</b> 09/624,670	<b>Applicant(s)</b> MUKERJI ET AL.	
	<b>Examiner</b> Delia M. Ramirez	<b>Art Unit</b> 1652	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED                      FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 22 September 2003. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.

3. ☒ Applicant's reply has overcome the following rejection(s): see attached.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 1,3-5,8-24 and 47.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 50-53.

Claim(s) withdrawn from consideration: 6-7,25-46,49.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

### ADVISORY ACTION

1. Claims 1, 3-47, 49-53 are pending.
2. The request for entering amendments to claims 1, 3-4, 16, 23, 47 and arguments filed on 9/22/2003 under 37 CFR 1.116 in reply to the Final Action mailed on 6/18/2003 are acknowledged. The proposed amendments to claims 1, 3-4, 16, 23, 47 will be entered since they are deemed sufficient to overcome the objections and 35 USC 112, second paragraph rejections previously applied. However, entry of these amendments is not deemed sufficient to place the application in condition for allowance for the following reasons.
3. Claims 50-53 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for polynucleotides encoding the polypeptides of SEQ ID NO: 63 or SEQ ID NO: 64, does not reasonably provide enablement for (1) polynucleotides encoding polypeptides having elongase activity wherein said polypeptides are at least 70% sequence similar to the polypeptides of SEQ ID NO: 63 or 64, or (2) polynucleotides encoding polypeptides having elongase activity wherein said polypeptides are at least 60% sequence identical to the polypeptides of SEQ ID NO: 63 or 64. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.
4. Applicants argue that MELO4 (SEQ ID NO: 63) and MELO7 (SEQ ID NO: 64) share 58.9% sequence identity and 67.7% sequence similarity and that MELO7 is 93% identical within a 299 amino acid overlap to HSELO1 (SEQ ID NO: 60). As such, Applicants conclude that the specification supports the fact that the claimed invention encompasses sequences having at least 70% similarity or at least 60% identity to SEQ ID NO: 64. In addition, Applicants request the Examiner's consideration of U.S. Patent No. 6566583. It is Applicant's contention that claim 1 of such patent recites a nucleic acid encoding an amino acid sequence that is at least 60% identical to another sequence and does not recite any functional

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limitation, whereas the present claims recite a functional limitation. Therefore, in view of what is disclosed in the specification, and what was allowed in U.S. Patent No. 6566583, Applicants submit that there is support for the full scope of the claims. Applicants request that the Examiner provide an explanation as to the differences between the examination and outcome of the issued U.S. Patent and the examination of the instant application.

5. Applicant's arguments have been fully considered but are not deemed persuasive to overcome the rejection. The Examiner acknowledges the structural similarity between the different polypeptides disclosed in the specification but disagrees with Applicant's contention that this information is sufficient to enable the full scope of the claims. As indicated previously in the Final Action, there is no disclosure of the critical structural elements required in a polypeptide to have elongase activity, nor there is disclosure of which are the amino acids which can be substituted, deleted or inserted in the polypeptides of SEQ ID NO: 63 or 64 to create 60% or 70% structural homologs which retain elongase activity. In addition, there is no information as to whether the conserved amino acids among the elongases disclosed correlate with function, nor there is information as to whether the non-identical/non-conserved residues can be deleted or substituted with any amino acid and still retain function. The state of the art, as evidenced by the teachings of Broun et al., Van de Loo et al. and Seffernick et al. already discussed in previous Office Actions, discloses the unpredictability of accurately assigning function based on structural homology and teaches how small changes can lead to major changes in function. Therefore, one cannot reasonably conclude that the information disclosed in the specification is sufficient to enable the full scope of the claimed invention. In regard to Applicant's request for consideration of U.S. Patent No. 6566583, it is noted that each application is examined on its own merits according to the current guidelines of examination as set forth by the USPTO and a discussion of patentability issues in such patent would require a detail review of the record of the case, which would be improper herein.

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Applicants are also reminded that the Examiner has no authority to comment in regard to the examination of other patent applications.

6. The 112 first paragraph rejections previously applied are, therefore, maintained for the reasons of record and for the reasons set forth above.

7. It is noted that there is a typographical error in claim 17 (hostcell instead of host cell) as shown in the listing of claims submitted on 9/22/2003.

8. For purposes of Appeal, the status of the claims is as follows:

Claim(s) allowed: 1, 3-5, 8-24, 47

Claims(s) objected to: NONE

Claim(s) rejected: 50-53

Claim(s) withdrawn from consideration: 6-7, 25-46 and 49

9. Certain papers related to this application may be submitted to Art Unit 1652 by facsimile transmission. The FAX number is (703) 308-4556. The faxing of such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 CFR 1.6(d)). NOTE: If Applicant submits a paper by FAX, the original copy should be retained by Applicant or Applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED, so as to avoid the processing of duplicate papers in the Office.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delia M. Ramirez whose telephone number is (703) 306-0288. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy can be reached on (703) 308-3804. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Delia M. Ramirez, Ph.D.  
Patent Examiner  
Art Unit 1652

DR  
October 3, 2003

*Delia M. Ramirez*  
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PATENT EXAMINER  
OCT 14 2003  
1652